

**Response to EPA Review Comments dated June 17, 2002
January 21, 2002 Post Remediation Report – Sand Blast Grit Area
Occidental Chemical Corporation, Delaware City, DE**

Below are the June 17, 2002 comments from the USEPA regarding the January 21, 2002 *Post Remediation Report – Sand Blast Grit Area*, followed – **in bold** – by OxyChem's response.

1. Section 3.2 of the Post Remediation Report includes a statement indicating that arsenic is not believed to be a contaminant of concern at the facility. Based on the data collected as part of the confirmation sampling for the SBGA, it appears that arsenic must be considered a contaminant of concern at the facility. As noted in the Report, 8 of the 20 confirmation sample results were above the industrial RBC for arsenic. Based on a review of Figure 3, and the distribution and concentration of metals detected in soils, the highest concentrations of arsenic and lead tend to be located near the sand blasting booth, suggesting the SBGA as the source of these contaminants. Please clarify whether arsenic is contained in any of the paints used by Occidental or sand blasted at the SBGA, or whether arsenic concentrations have been observed in the sand blast grit (if analyzed).

Based on discussions with the Plant, OxyChem is not aware of whether arsenic was contained in any of the paints used historically at the facility or sand blasted at the SBGA. TCLP analysis of the sand blast grit performed for disposal purposes reveals no arsenic. These data were included as Attachment B to OxyChem's August 21, 2001 response to EPA's June 29, 2001 comments.

2. During our review of Section 4.0 of the Post Remediation Report, we noted that although the average concentration of TAL metals were below industrial RBCs based on direct contact (except arsenic), several data points showed concentrations of concern with respect to the soil-to-groundwater pathway (SSLs exceeded for arsenic and mercury). With respect to the arsenic concentrations (8 out of 20 samples exceeded industrial RBC for direct contact), EPA recommends that measures be taken to excavate visible grit and surficial soil in the areas that confirmation samples 1, 3, and 5 were collected (immediately adjacent to pad), as depicted on Figure 3 of the Report. This would help to ensure that the SBGA IM meets the originally stated objectives, and results in eliminating the risk of human/worker exposure through direct contact. Additional excavation should also be considered and completed at those confirmation sample locations where soil screening levels ("SSLs") for mercury and arsenic were exceeded. This additional removal would help ensure that groundwater is not impacted by these elevated soil concentrations.

Oxychem will perform additional excavation of the visible grit and surface soils in the vicinity of confirmation samples 1, 3, 5, 8, 13, and 16 prior to the post-remediation inspection.

3. Table 3 - EPA noted a few errors during our review of this Table. Although we are not requesting revisions to this document, we will describe the errors that were noted for your future reference, and to help you understand the conclusions EPA reached regarding the need for additional action to address residual inorganic soil concentrations that may pose a risk to groundwater. EPA uses the Generic SSLs for migration to groundwater that are provided in the May 1996 Soil Screening Guidance, Technical

Background Document (EPA/540/R-95/129) for screening data to identify whether any threat to groundwater may be posed by the leaching pathway. Some reference to this guidance should be added to Table 3. EPA does not typically use the “Ingestion” and “Inhalation volatiles” values that are also provided with the Generic SSLs for migration to groundwater in the May 1996 guidance document for screening data. Therefore, the column titled “EPA Generic SSL Direct” on Table 3 should be deleted. The last column of Table 3 includes most of the SSLs that EPA uses for screening site data with the following exceptions:

- Arsenic values should be revised and updated to reflect the new MCL for Arsenic of 10 ppb versus the 50 ppb value the Generic SSLs were derived from. At a minimum, the Arsenic SSL value should be amended to include the EPA Region III RBC table SSL based on a DAF of 20 for arsenic (2.6×10^{-2} mg/kg).

- The footnote assigned to the chromium SSL is incorrect. Table A-1 of the May 1996 EPA Soil Screening Guidance, Technical Background Document includes a SSL value of 38 mg/kg for both total chromium and hexavalent chromium.

- EPA has no generic SSL for lead, and the 400 ppm value on Table 3 is incorrect. Oxy would have to derive a specific SSL for lead beginning with the 15 ppb action level currently used by EPA as an interim groundwater protection standard for lead.

- The last error relates to mercury; 2 ppm is the correct SSL to use for screening inorganic mercury data, however the footnote assigned to this value is incorrect. This value was developed for inorganic mercury, and is not applicable to methyl mercury, as currently noted on Table 3, footnote C. This concludes the errors noted during our review of Table 3.

OxyChem acknowledges and accepts EPA’s above comments regarding Table 3.

4. EPA agrees with Occidental’s proposal to inspect the SBGA on a bi-monthly basis, and to remove visible grit that has accumulated for offsite disposal. Please clarify whether these bi-monthly inspections will be continued for as long as the SBGA is used, or whether Occidental envisioned a shorter time frame. In addition, EPA is interested in participating in the Post-remediation inspection that is referenced in the January 21, 2002 cover letter for the Report. Please contact us to schedule an acceptable time for this task.

OxyChem envisions that these inspections will continue into the foreseeable future. OxyChem will contact EPA regarding the Post-Remediation inspection following the excavation discussed in the response to comment 2.

5. EPA has also reviewed the May 9, 2002 Bimonthly Progress Report submitted by Occidental, and the SBGA inspection log that is provided as Attachment A. The following comments were noted on the SBGA inspection log from April 4, 2002:

- *“The tarp that surrounds the pad is blown away.”*
- *“Workers were welding rails around pad to attach new walls/tarp around area.”*
- *“Area surrounding pad had small amount of grit on ground.”*

The May 9 Bimonthly Progress Report also included a statement indicating that the curtains damaged

during a recent windstorm will be replaced upon delivery. Please clarify this matter and provide EPA with an update on the current conditions of the SBGA prior to arranging for a Post Remediation inspection. Please clarify whether the tarp referenced in the Inspection Log is part of the IM activities completed at the SBGA, or whether this could be a reference to one of the curtains. Has the tarp been replaced as noted in the recommendations on the inspection log? Please also indicate whether sand blasting work has been performed at the SBGA without any curtains around the concrete pad, and whether significant quantities of grit have accumulated on the surface of the ground around the concrete pad as a result of this. Finally, please clarify whether the curtains have been delivered and installed.

The tarp referenced in the Inspection Log refers to the curtains around the north, west, and east sides of the Sand Blast Grit Area. The entrance/exit curtain installed as part of the IMs activities remains in place and is intact on the south side. Sand blasting was not performed during the period of time that there were no curtains at the Sand Blast Grit Area. Construction of the replacement sides (fiberglass) was completed on July 10th.